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 Ser Phe Phe Ser Phe Pro Glu Leu Gln Val Leu Asp Leu Ser Arg Cys  
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 Ser Thr Leu Ile Leu Thr Gly Asn Pro Ile Gln Ser Leu Ala Leu Gly  
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 Ala Phe Ser Gly Leu Ser Ser Leu Gln Lys Leu Val Ala Val Glu Thr  
 85 90 95  
 Asn Leu Ala Ser Leu Glu Asn Phe Pro Ile Gly His Leu Lys Thr Leu  
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 Lys Glu Leu Asn Val Ala His Asn Leu Ile Gln Ser Phe Lys Leu Pro  
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 Glu Tyr Phe Ser Asn Leu Thr Asn Leu Glu His Leu Asp Leu Ser Ser  
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Cys	Asn	Leu	Thr	Ile	Glu	Glu	Phe	Arg	Leu	Ala	Tyr	Leu	Asp	Tyr	Tyr
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Ser	Val	Phe	Leu	Ser	Leu	Arg	Asn	Leu	Ile	Tyr	Leu	Asp	Ile	Ser	His
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Thr Tyr Leu Glu Trp Glu Asp Ser Val Leu Gly Arg His Ile Phe Trp  
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Pro Asn Ile Thr Tyr Gln Cys Met Asp Gln Asn Leu Ser Lys Ile Pro
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His Asp Ile Pro Tyr Ser Thr Lys Asn Leu Asp Leu Ser Phe Asn Pro
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Leu Lys Ile Leu Arg Ser Tyr Ser Phe Thr Asn Phe Ser Gln Leu Gln
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Trp Leu Asp Leu Ser Arg Cys Glu Ile Glu Thr Ile Glu Asp Lys Ala
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Trp His Gly Leu Asn Gln Leu Ser Thr Leu Val Leu Thr Gly Asn Pro
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Ile Lys Ser Phe Ser Pro Gly Ser Phe Ser Gly Leu Thr Asn Leu Glu
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Asn Leu Val Ala Val Glu Thr Lys Met Thr Ser Leu Glu Gly Phe His
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Ile Gly Gln Leu Ile Ser Leu Lys Lys Leu Asn Val Ala His Asn Leu	145	150	155	160
Ile His Ser Phe Lys Leu Pro Glu Tyr Phe Ser Asn Leu Thr Asn Leu	165	170	175	
Glu His Val Asp Leu Ser Tyr Asn Tyr Ile Gln Thr Ile Ser Val Lys	180	185	190	
Asp Leu Gln Phe Leu Arg Glu Asn Pro Gln Val Asn Leu Ser Leu Asp	195	200	205	
Leu Ser Leu Asn Pro Ile Asp Ser Ile Gln Ala Gln Ala Phe Gln Gly	210	215	220	
Ile Arg Leu His Glu Leu Thr Leu Arg Ser Asn Phe Asn Ser Ser Asn	225	230	235	240
Val Leu Lys Met Cys Leu Gln Asn Met Thr Gly Leu His Val His Arg	245	250	255	
Leu Ile Leu Gly Glu Phe Lys Asn Glu Arg Asn Leu Glu Ser Phe Asp	260	265	270	
Arg Ser Val Met Glu Gly Leu Cys Asn Val Ser Ile Asp Glu Phe Arg	275	280	285	
Leu Thr Tyr Ile Asn His Phe Ser Asp Asp Ile Tyr Asn Leu Asn Cys	290	295	300	
Leu Ala Asn Ile Ser Ala Met Ser Phe Thr Gly Val His Ile Lys His	305	310	315	320
Ile Ala Asp Val Pro Arg His Phe Lys Trp Gln Ser Leu Ser Ile Ile	325	330	335	
Arg Cys His Leu Lys Pro Phe Pro Lys Leu Ser Leu Pro Phe Leu Lys	340	345	350	
Ser Trp Thr Leu Thr Thr Asn Arg Glu Asp Ile Ser Phe Gly Gln Leu	355	360	365	
Ala Leu Pro Ser Leu Arg Tyr Leu Asp Leu Ser Arg Asn Ala Met Ser	370	375	380	
Phe Arg Gly Cys Cys Ser Tyr Ser Asp Phe Gly Thr Asn Asn Leu Lys	385	390	395	400
Tyr Leu Asp Leu Ser Phe Asn Gly Val Ile Leu Met Ser Ala Asn Phe	405	410	415	
Met Gly Leu Glu Glu Leu Glu Tyr Leu Asp Phe Gln His Ser Thr Leu	420	425	430	

Lys Lys Val Thr Glu Phe Ser Val Phe Leu Ser Leu Glu Lys Leu Leu  
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Tyr Leu Asp Ile Ser Tyr Thr Asn Thr Lys Ile Asp Phe Asp Gly Ile  
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Phe Leu Gly Leu Ile Ser Leu Asn Thr Leu Lys Met Ala Gly Asn Ser  
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Phe Lys Asp Asn Thr Leu Ser Asn Val Phe Thr Asn Thr Thr Asn Leu  
                           485                          490                          495

Thr Phe Leu Asp Leu Ser Lys Cys Gln Leu Glu Gln Ile Ser Arg Gly  
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Val Phe Asp Thr Leu Tyr Arg Leu Gln Leu Leu Asn Met Ser His Asn  
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Asn Leu Leu Phe Leu Asp Pro Ser His Tyr Lys Gln Leu Tyr Ser Leu  
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Arg Thr Leu Asp Cys Ser Phe Asn Arg Ile Glu Thr Ser Lys Gly Ile  
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Ser Val Ala Cys Ile Cys Glu Tyr Gln Asn Phe Leu Gln Trp Val Lys  
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Asp Gln Lys Met Phe Leu Val Asn Val Glu Gln Met Lys Cys Ala Ser  
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Pro Ile Asp Met Lys Ala Ser Leu Val Leu Asp Phe Thr Asn Ser Thr  
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Val Val Ala Thr Val Ala Phe Leu Ile Tyr His Phe Tyr Phe His Leu  
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Ile Leu Ile Ala Gly Cys Lys Lys Tyr Ser Arg Gly Glu Ser Ile Tyr  
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Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Arg Phe Gln Leu Cys  
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Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala Asn Ile  
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Ile Gln Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val Val Ser

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Gln	Thr	Trp	Gln	Phe	Leu	Ser	Ser	Arg	Ser	Gly	Ile	Ile	Phe	Ile	Val
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Leu	Glu	Lys	Val	Glu	Lys	Ser	Leu	Leu	Arg	Gln	Gln	Val	Glu	Leu	Tyr
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 Ala Leu Pro Ser Leu Ser Tyr Leu Asp Leu Ser Arg Asn Ala Leu Ser  
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 Phe Ser Gly Cys Cys Ser Tyr Ser Asp Leu Gly Thr Asn Ser Leu Arg  
 385 390 395 400  
 His Leu Asp Leu Ser Phe Asn Gly Ala Ile Ile Met Ser Ala Asn Phe  
 405 410 415  
 Met Gly Leu Glu Glu Leu Gln His Leu Asp Phe Gln His Ser Thr Leu  
 420 425 430  
 Lys Arg Val Thr Glu Phe Ser Ala Phe Leu Ser Leu Glu Lys Leu Leu  
 435 440 445  
 Tyr Leu Asp Ile Ser Tyr Thr Asn Thr Lys Ile Asp Phe Asp Gly Ile  
 450 455 460  
 Phe Leu Gly Leu Thr Ser Leu Asn Thr Leu Lys Met Ala Gly Asn Ser  
 465 470 475 480  
 Phe Lys Asp Asn Thr Leu Ser Asn Val Phe Ala Asn Thr Thr Asn Leu  
 485 490 495  
 Thr Phe Leu Asp Leu Ser Lys Cys Gln Leu Glu Gln Ile Ser Trp Gly  
 500 505 510  
 Val Phe Asp Thr Leu His Arg Leu Gln Leu Leu Asn Met Ser His Asn  
 515 520 525  
 Asn Leu Leu Phe Leu Asp Ser Ser His Tyr Asn Gln Leu Tyr Ser Leu  
 530 535 540  
 Ser Thr Leu Asp Cys Ser Phe Asn Arg Ile Glu Thr Ser Lys Gly Ile



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Leu Gln His Phe Pro Lys Ser Leu Ala Phe Phe Asn Leu Thr Asn Asn						
		565		570		575
Ser Val Ala Cys Ile Cys Glu His Gln Lys Phe Leu Gln Trp Val Lys						
		580		585		590
Glu Gln Lys Gln Phe Leu Val Asn Val Glu Gln Met Thr Cys Ala Thr						
		595		600		605
Pro Val Glu Met Asn Thr Ser Leu Val Leu Asp Phe Asn Asn Ser Thr						
		610		615		620
Cys Tyr Met Tyr Lys Thr Ile Ile Ser Val Ser Val Val Ser Val Ile						
		625		630		635
						640
Val Val Ser Thr Val Ala Phe Leu Ile Tyr His Phe Tyr Phe His Leu						
		645		650		655
Ile Leu Ile Ala Gly Cys Lys Lys Tyr Ser Arg Gly Glu Ser Ile Tyr						
		660		665		670
Asp Ala Phe Val Ile Tyr Ser Ser Gln Asn Glu Asp Trp Val Arg Asn						
		675		680		685
Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Arg Phe His Leu Cys						
		690		695		700
Leu His Tyr Arg Asp Phe Ile Pro Gly Val Ala Ile Ala Ala Asn Ile						
		705		710		715
						720
Ile Gln Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val Val Ser						
		725		730		735
Arg His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu Ile Ala						
		740		745		750
Gln Thr Trp Gln Phe Leu Ser Ser Arg Ser Gly Ile Ile Phe Ile Val						
		755		760		765
Leu Glu Lys Val Glu Lys Ser Leu Leu Arg Gln Gln Val Glu Leu Tyr						
		770		775		780
Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Asn Pro Leu						
		785		790		795
						800
Gly Arg His Ile Phe Trp Arg Arg Leu Lys Asn Ala Leu Leu Asp Gly						
		805		810		815
Lys Ala Ser Asn Pro Glu Gln Thr Ala Glu Glu Glu Gln Glu Thr Ala						
		820		825		830
Thr Trp Thr						
		835				

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 Phe Ser Cys Leu Thr Pro Gly Ser Leu Asn Pro Cys Ile Glu Val Val  
 20 25 30  
  
 Pro Asn Ile Thr Tyr Gln Cys Met Asp Gln Lys Leu Ser Lys Val Pro  
 35 40 45  
  
 Asp Asp Ile Pro Ser Ser Thr Lys Asn Ile Asp Leu Ser Phe Asn Pro  
 50 55 60

Leu	Lys	Ile	Leu	Lys	Ser	Tyr	Ser	Phe	Ser	Asn	Phe	Ser	Glu	Leu	Gln	65	70	75	80
Trp	Leu	Asp	Leu	Ser	Arg	Cys	Glu	Ile	Glu	Thr	Ile	Glu	Asp	Lys	Ala	85	90	95	
Trp	His	Gly	Leu	His	His	Leu	Ser	Asn	Leu	Ile	Leu	Thr	Gly	Asn	Pro	100	105	110	
Ile	Gln	Ser	Phe	Ser	Pro	Gly	Ser	Phe	Ser	Gly	Leu	Thr	Ser	Leu	Glu	115	120	125	
Asn	Leu	Val	Ala	Val	Glu	Thr	Lys	Leu	Ala	Ser	Leu	Glu	Ser	Phe	Pro	130	135	140	
Ile	Gly	Gln	Leu	Ile	Thr	Leu	Lys	Lys	Leu	Asn	Val	Ala	His	Asn	Phe	145	150	155	160
Ile	His	Ser	Cys	Lys	Leu	Pro	Ala	Tyr	Phe	Ser	Asn	Leu	Thr	Asn	Leu	165	170	175	
Val	His	Val	Asp	Leu	Ser	Tyr	Asn	Tyr	Ile	Gln	Thr	Ile	Thr	Val	Asn	180	185	190	
Asp	Leu	Gln	Phe	Leu	Arg	Glu	Asn	Pro	Gln	Val	Asn	Leu	Ser	Leu	Asp	195	200	205	
Met	Ser	Leu	Asn	Pro	Ile	Asp	Phe	Ile	Gln	Asp	Gln	Ala	Phe	Gln	Gly	210	215	220	
Ile	Lys	Leu	His	Glu	Leu	Thr	Leu	Arg	Gly	Asn	Phe	Asn	Ser	Ser	Asn	225	230	235	240
Ile	Met	Lys	Thr	Cys	Leu	Gln	Asn	Leu	Ala	Gly	Leu	His	Val	His	Arg	245	250	255	
Leu	Ile	Leu	Gly	Glu	Phe	Lys	Asp	Glu	Arg	Asn	Leu	Glu	Ile	Phe	Glu	260	265	270	
Pro	Ser	Ile	Met	Glu	Gly	Leu	Cys	Asp	Val	Thr	Ile	Asp	Glu	Phe	Arg	275	280	285	
Leu	Thr	Tyr	Thr	Asn	Asp	Phe	Ser	Asp	Asp	Ile	Val	Lys	Phe	His	Cys	290	295	300	
Leu	Ala	Asn	Val	Ser	Ala	Met	Ser	Leu	Ala	Gly	Val	Ser	Ile	Lys	Tyr	305	310	315	320
Leu	Glu	Asp	Val	Pro	Lys	His	Phe	Lys	Trp	Gln	Ser	Leu	Ser	Ile	Ile	325	330	335	
Arg	Cys	Gln	Leu	Lys	Gln	Phe	Pro	Thr	Leu	Asp	Leu	Pro	Phe	Leu	Lys	340	345	350	

Ser Leu Thr Leu Thr Met Asn Lys Gly Ser Ile Ser Phe Lys Lys Val  
 355 360 365  
 Ala Leu Pro Ser Leu Ser Tyr Leu Asp Leu Ser Arg Asn Ala Leu Ser  
 370 375 380  
 Phe Ser Gly Cys Cys Ser Tyr Ser Asp Leu Gly Thr Asn Ser Leu Arg  
 385 390 395 400  
 His Leu Asp Leu Ser Phe Asn Gly Ala Ile Ile Met Ser Ala Asn Phe  
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 Met Gly Leu Glu Glu Leu Gln His Leu Asp Phe Gln His Ser Thr Leu  
 420 425 430  
 Lys Arg Val Thr Glu Phe Ser Ala Phe Leu Ser Leu Glu Lys Leu Leu  
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 Tyr Leu Asp Ile Ser Tyr Thr Asn Thr Lys Ile Asp Phe Asp Gly Ile  
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 Phe Leu Gly Leu Thr Ser Leu Asn Thr Leu Lys Met Ala Gly Asn Ser  
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 Phe Lys Asp Asn Thr Leu Ser Asn Val Phe Ala Asn Thr Thr Asn Leu  
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 565 570 575  
 Ser Val Ala Cys Ile Cys Glu His Gln Lys Phe Leu Gln Trp Val Lys  
 580 585 590  
 Glu Gln Lys Gln Phe Leu Val Asn Val Glu Gln Met Thr Cys Ala Thr  
 595 600 605  
 Pro Val Glu Met Asn Thr Ser Leu Val Leu Asp Phe Asn Asn Ser Thr  
 610 615 620  
 Cys Tyr Met Tyr Lys Thr Ile Ile Ser Val Ser Val Val Ser Val Ile  
 625 630 635 640  
 Val Val Ser Thr Val Ala Phe Leu Ile Tyr His Phe Tyr Phe His Leu

645

650

655

Ile Leu Ile Ala Gly Cys Lys Lys Tyr Ser Arg Gly Glu Ser Ile Tyr  
660 665 670

Asp Ala Phe Val Ile Tyr Ser Ser Gln Asn Glu Asp Trp Val Arg Asn  
675 680 685

Glu Leu Val Lys Asn Leu Glu Glu Gly Val Pro Arg Phe His Leu Cys  
690 695 700

Leu His Tyr Arg Asp Phe Ile His Gly Val Ala Ile Ala Ala Asn Ile  
705 710 715 720

Ile Gln Glu Gly Phe His Lys Ser Arg Lys Val Ile Val Val Val Ser  
725 730 735

Arg His Phe Ile Gln Ser Arg Trp Cys Ile Phe Glu Tyr Glu Ile Ala  
740 745 750

Gln Thr Trp Gln Phe Leu Ser Ser Arg Ser Gly Ile Ile Phe Ile Val  
755 760 765

Leu Glu Lys Val Glu Lys Ser Leu Leu Arg Gln Gln Val Glu Leu Tyr  
770 775 780

Arg Leu Leu Ser Arg Asn Thr Tyr Leu Glu Trp Glu Asp Asn Pro Leu  
785 790 795 800

Gly Arg His Ile Phe Trp Arg Arg Leu Lys Asn Ala Leu Leu Asp Gly  
805 810 815

Lys Ala Ser Asn Pro Glu Gln Thr Ala Glu Glu Glu Gln Glu Thr Ala  
820 825 830

Thr Trp Thr  
835

C3  
cont